KEYBOARD TAPE PUNCH AND

KEYBOARD TYPING TAPE PUNCH
(OFF LINE)

DISASSEMBLY AND REASSEMBLY

1. GENERAL

1.01 Disassembly, as outlined in this section, covers the procedure for removing the principle subassemblies which make up the unit.

1.02 The disassembly procedure given in this section will break the Keyboard Tape Punch and Keyboard Typing Tape Punch down into their major assemblies and mechanisms. If further disassembly is required, refer to the appropriate parts publications which shows detailed arrangements of parts.

1.03 Most maintenance, lubrication and adjustments can be accomplished simply by removing the subject component from the cabinet. If possible, disassembly should be confined to subassemblies, which can, in some cases, be removed without disturbing the adjustments. When reassembling the subassemblies, check all associated adjustments and spring tensions.

1.04 If a part that is mounted on shims is removed, the number of shims used at each of its mounting screws should be noted so that the same shim pile-up can be replaced when the part is remounted.

1.05 Retaining rings are made of spring steel and have a tendency to release suddenly. To avoid loss of these rings when removing them, proceed as follows: Hold retaining ring to prevent its rotating. Place blade of screwdriver in one of ring's slots. Rotate screwdriver in direction to increase diameter. Ring will come off easily in fingers without flying.

1.06 Avoid loss of springs in disassembly by holding one spring loop with the left hand while gently removing the opposite loop with a spring hook. Do not stretch or distort springs while removing them.

1.07 When discussing the disassembly and reassembly of the keyboard base, it is assumed that the major components such as the perforators, have been removed. The cover is easily removed by lifting it from the keyboard base. When replacing the cover, be sure that the locating tabs on the cabinet fit snugly on the keyboard base plate.

1.08 In removing a subassembly from the unit, the procedure followed and the location from which parts are removed must be carefully noted so that reassembly can be done correctly. Where no specific instructions are given for reassembly, reverse the procedure used in removing it.

2. DISASSEMBLY AND REASSEMBLY

KEYBOARD BASE

2.01 To disassemble the keyboard assembly two procedures may be used: (a) With the keyboard removed from the base; (b) With the keyboard attached to the base.
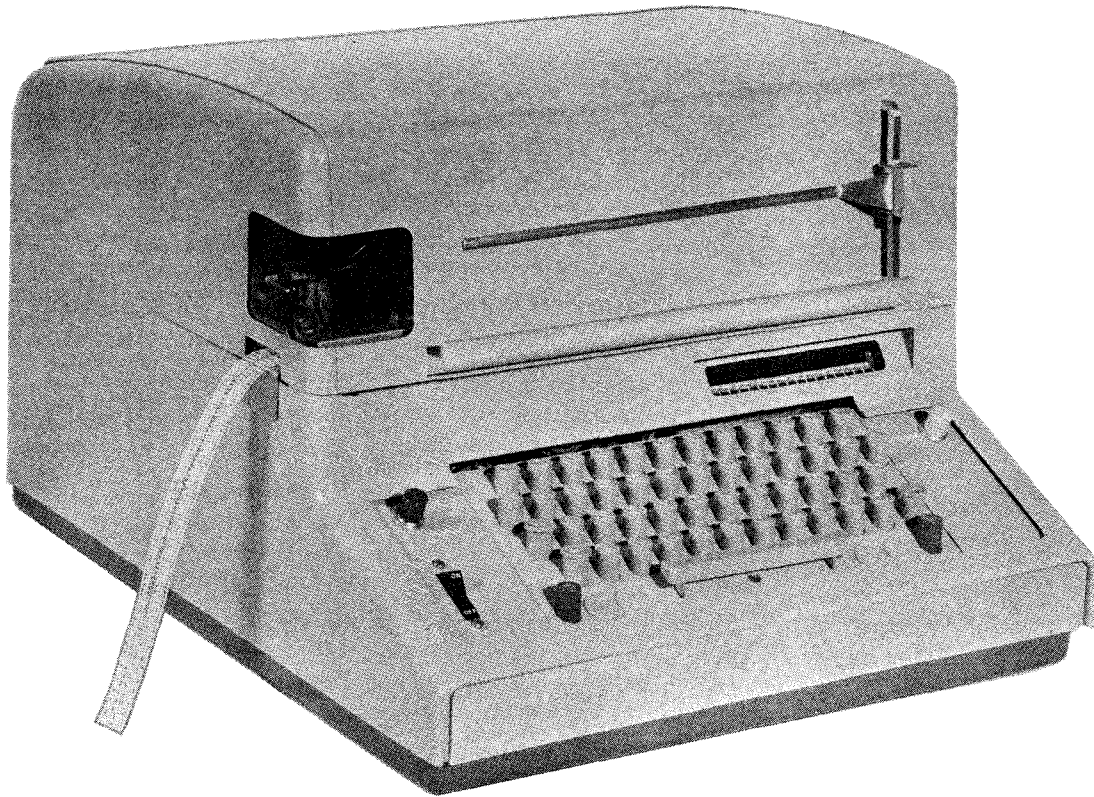
Figure 1 - Keyboard Typing Tape Punch

(a) Keyboard removed from base.

(1) To remove the keyboard from the base, remove the four screws which hold the front frame to the front of the base.

(2) From the top of the base remove the two screws with flat washers at the right and left rear side of the code bar assembly brackets. Remove the two screws at the extreme left and right ends of the right angle bracket at the front of code bar assembly. Remove the screw and cable clamp at the left of this bracket.

(3) When these eight screws have been removed, the keyboard assembly can be removed from the base by tipping it upward at the front and pulling it forward so as to disengage the function levers. Note that all the function levers are under their corresponding function bails so that they may be replaced correctly when reassembling.

(4) Remove the four screws from the space bar. Lift the space bar out. Remove the four screws from the plastic keylever guide plate. Lift the guide plate out.

(5) To remove a keylever, hook one lug of the associated code lever, and the other lug in the slot of the keylever. A pull forward on the tool will snap the keylever from its code lever.

(6) Disconnect the TP 154021 space bail link at its code lever by removing its retainer. Remove the screw at each end of the lock ball track to remove the track. The TP 154080 wedgelocks may then be removed from their code levers.

(7) To remove the code bars, unhook the code bar springs from the spring bracket at the right end. Leave springs on code bars. Loosen the adjusting screws at the right and left end bracket.

Lift the code bar guides to the top limit of their adjusting slots. Move the code bar to the right until it clears the left-hand guide. Lift the code bar slightly and move it to the left until it clears the right-hand guide.

(8) To remove a function lever or code lever after the keyboard assembly has been dismantled to the keylever guide assembly stage and the code bars have been removed, turn the assembly upside down. Remove all code lever springs. Remove the inner retainer from the pivot shaft and pull the shaft out until the levers are free. Remove the levers toward the front.

(b) With keyboard attached to base.

(1) To remove a keylever assembly, hook the end lug of the keylever removal tool over the top of its associated code lever and the other lug in the slot of the keylever. A pull forward will snap each keylever from its pivot stud on the code lever.

(2) To remove the lock ball channel, remove the 4-40 screws at each end of the wedge retainer plate. Loosen the clamp at the center. As the wedge retainer is removed, note the number of spacer washers at each end. Remove the mounting screws at each end of the lock ball bar assembly to free it from the keyboard.

(3) The 53 lock balls can be removed by taking the adjusting screw out at the end channel and permitting the balls to roll out.

(4) Remove the pivot screw which fastens the space bar assembly to the space bar bail. Remove the hold-down screw located under the space bar, and the two screws at each end of the keylever guide plate. Work the guide plate upward and off the keylevers.

(5) To remove the universal bail, set the keyboard up vertically on its rear side using the motor as a prop. Remove the bail spring. Loosen the lock nut on each universal bail pilot screw. Back off one pilot screw and lift the bail out.

(6) To reinstall the keylever guide plate with the keylevers attached, flip them all toward the rear. Place the front edge of the guide plate on the frame and push the keylevers of the front row into their respective holes. Then work in the second, third and fourth rows in a similar manner.

CHARACTER COUNTER

2.02 To disassemble the character counter from the keyboard base, remove the two hold-down screws, lift up the character counter and remove the two screws holding the end of line switch to its bracket.

2.03 To disassemble the ratchet drum assembly:

(a) Remove the two screws holding clamp to assembly and remove clamp.

(b) Remove the cam plate. The indicator and cord assembly may be replaced at this point.

(c) Remove the retaining ring and washer. The ratchet and drum can not be removed.

2.04 To remove the idler pulley, remove the lock nut holding the idler pulley bearing stud to the frame.

2.05 To disassemble the reset bail and feed bail from the character counter frame, remove the retaining ring and slide the bails from their pivot stud. Note carefully the position of the spacing washer between the feed and reset bail and replace accordingly.

2.06 To remove the reset lever assembly, remove the bearing stud. Note the position of the spacing washer and replace accordingly.

2.07 While performing the disassembly procedure on the character counter, the various pivot points of the mechanism should be inspected carefully to determine whether any signs of wear or deficient lubrication (red rust) can be detected. The cord assembly should be inspected for signs of wear (fraying) and to be sure that the drive and latch levers do not strike the cord.

NON-TYPING PERFORATOR

2.08 The following procedure should be followed when disassembling the non-typing perforator.

(a) Disconnect electrical cables.

(b) Remove the screws from the base and mounting bracket.

(c) The perforator may now be removed from the base.

(d) The punch mechanism can be removed from the frame assembly as a unit by removing the three mounting screws.

TYPING PERFORATOR

2.09 The procedure outlined below will break the typing perforator down to its major subassemblies.

(a) To remove the ribbon feed mechanism:

(1) Remove ribbon.

(2) Remove two mounting screws.

(3) Remove ribbon feed mechanism.

(b) To remove spring and disconnect punch drive link:

(1) Remove the spring and disconnect the perforator drive link from the rocker arm.

(2) Remove the three mounting screws (with lock washers) that fasten the rear plate to the main plate.

(3) Remove the punch mechanism.

(c) To remove the transfer lever assembly:

(1) Remove the trip lever spring.

(2) Remove the two mounting screws with lock washers.

(3) Remove the transfer lever assembly.

(d) To remove typing unit assembly:

(1) Remove the operating blade from the rocker bail assembly by removing its two mounting screws with lock washer, flat washers and shims.

(2) Disconnect the print hammer drive link.

(3) Remove the nut, lock washer and flat washers from the eccentric on the rocker bail and disconnect the oscillating drive link.

(4) Remove the print hammer accelerator spring and the lifter blade return spring.

(5) Remove screw with lock washer that fastens the lifter plate to the bar on the frame.

(6) Remove the screw with lock washer that secures the axial bracket to the post on the frame.

(7) Remove the screw (with lock washer and flat washer) that fastens the function box front plate to the main plate.

(8) Remove the three screws (with lock washers and flat washers) that secure the front plate to the frame. Remove the typing mechanism from the frame.

(e) To remove function box mechanism:

(1) Remove the mounting screw (with lock washer and two flat washers) that passes through the function box rear plate and the spring bracket into the front plate.

(2) Remove the function box from the typing mechanism.

(f) To remove axial plate assembly:

(1) Remove corrector drive link and spring.

(2) Remove the three mounting screws and washers.

(3) Remove axial plate assembly.